

29. (New) An apparatus according to claim 28, wherein the reflecting prism has a radiation entry surface that is configured as a nonplanar aspherical surface.

30. (New) An apparatus according to claim 27, wherein the deflection element has a radiation entry surface for receiving radiation from the radiation source, and radiation from the radiation source passes perpendicularly through the radiation entry surface.

31. (New) An apparatus according to claim 30, wherein the deflection element has a deflection surface that is disposed such that radiation from the radiation source is reflected in the interior of the deflection element.

32. (New) An apparatus according to claim 30, wherein the radiation entry surface has an optical axis and the radiation entry surface is curved such that radiation from the radiation source propagates in the deflection element parallel to said optical axis.

33. (New) An apparatus according to claim 30, wherein the deflection element has a deflection surface at which radiation from the radiation source is incident at an angle such as to be totally reflected.

34. (New) An apparatus according to claim 30, wherein the radiation entry surface is spherically curved.

35. (New) An apparatus according to claim 27, wherein radiation emitted from the emitting device passes to the first window portion along a third path and passes along the first path, radiation that leaves the target location along the second path passes from the second window portion to the receiving device along a fourth path, and the first, second, third, and fourth paths are substantially coplanar.

36. (New) An apparatus according to claim 27, wherein the deflection element has a curved radiation entry surface and a flat surface through which radiation passes from the emitting device towards the target location.

37. (New) An apparatus according to claim 27, wherein the deflection element is in direct contact with the first window portion.

38. (New) An apparatus according to claim 27, wherein the deflection element and the first window portion are integrally connected together.

39. (New) An apparatus according to claim 27, wherein the receiving device comprises a radiation detector and an optical deflection element positioned to receive radiation that passes from the target location along the second path and passes through the second window portion, and to deflect such radiation towards the radiation detector.

40. (New) An apparatus according to claim 39, wherein the target location and the deflection elements are disposed in a common plane and the radiation source and radiation detector are not in said common plane.

41. (New) An apparatus according to claim 39, wherein the deflection elements, the radiation source and the radiation detector are disposed in a common plane.

42. (New) An apparatus for performing scattered radiation measurements in fluids, comprising:

an emitting device for emitting radiation,

a receiving device for receiving radiation,

a first window portion between the emitting device and a target location, whereby radiation emitted from the emitting device arrives at the target location along a first path, and

a second window portion substantially coplanar with the first window portion and positioned so that radiation leaving the target location along a second path, which is at an angle of about 90° to the first path, passes through the second window portion towards the receiving device,

and wherein the receiving device comprises a radiation detector and an optical deflection element positioned to receive radiation that passes from the target location along the second path and passes

through the second window portion, and to deflect such radiation towards the radiation detector.

43. (New) An apparatus according to claim 42, wherein the deflection element comprises a reflecting prism.

44. (New) An apparatus according to claim 43, wherein the reflecting prism has a radiation entry surface that is configured as a nonplanar aspherical surface.

34
45. (New) An apparatus according to claim 42, wherein the deflection element has a radiation entry surface for receiving radiation from the radiation source, and radiation from the radiation source passes through perpendicularly through the radiation entry surface.

46. (New) An apparatus according to claim 45, wherein the deflection element has a deflection surface that is disposed such that radiation from the radiation source is reflected in the interior of the deflection element.

47. (New) An apparatus according to claim 45, wherein the radiation entry surface has an optical axis and the radiation entry surface is curved such that radiation from the radiation source propagates in the deflection element parallel to said optical axis.

48. (New) An apparatus according to claim 45, wherein the deflection element has a deflection surface at which radiation from the radiation source is incident at an angle such as to be totally reflected.

49. (New) An apparatus according to claim 45, wherein the radiation entry surface is spherically curved.

50. (New) An apparatus according to claim 42, wherein radiation emitted from the emitting device passes to the first window portion along a third path and passes along the first path, radiation that leaves the target location along the second path passes from the

second window portion to the receiving device along a fourth path, and the first, second, third, and fourth paths are substantially coplanar.

51. (New) An apparatus according to claim 42, wherein the deflection element has a curved radiation entry surface and a flat surface through which radiation passes from the emitting device towards the target location.

52. (New) An apparatus according to claim 42, wherein the deflection element is in direct contact with the first window portion.

53. (New) An apparatus according to claim 42, wherein the deflection element and the first window portion are integrally connected together.

By 54. (New) An apparatus according to claim 42, wherein the receiving device comprises a radiation detector and an optical deflection element positioned to receive radiation that passes from the target location along the second path and passes through the second window portion, and to deflect such radiation towards the radiation detector.

55. (New) An apparatus according to claim 54, wherein the target location and the deflection elements are disposed in a common plane and the radiation source and radiation detector are not in said common plane.

56. (New) An apparatus according to claim 54, wherein the deflection elements, the radiation source and the radiation detector are disposed in a common plane.
